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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 08/924,785 | 09/05/1997 | RICHARD W. PRATT | 785 | 4422 |

| 7590 | 11/24/2003 |
|---|---|

D'ALESSANDRO & RITCHIE
P.O. BOX 640640
SAN JOSE, CA 95164-0640

| EXAMINER |
|---|
| PRIETO, BEATRIZ |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2142 | 38 |

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | Application No. | | Applicant(s) | |
|---|---|---|---|---|---|
| **Office Action Summary** | | 08/924,785 | | PRATT, RICHARD W. | |
| | | Examiner | | Art Unit | |
| | | B. Prieto | | 2142 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _03 October 2003_.

2a)☒ This action is **FINAL**.    2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _13-24 and 40-60_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _13-24 and 40-60_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

| | |
|---|---|
| 1) ☐ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
| 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) ☐ Other: . |

## DETAILED ACTION

1.      This communication is in response to amendment filed 10/03/03; claims 13-24 and 40-60 remain pending and are hereby set forth for examination.

2.      Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this office action may be found in previous office action.

3.      Claims 13-15, 17-24, 40-43 and 45-46 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany U.S. Patent No. 5,922,050 in view of Beard U.S. Patent No. 6,067,577.

Regarding claim 13, Madany teaches features of the invention substantially as claimed, teaching a system/method for directing or controlling (i.e. managing) a network device (16) (col 3/lines 41-43) from a ("remote") client device (10) col 3/lines 35-39, col 2/lines 10-23);

        a software program ("network device control software program") included in the network device (col 3/lines 53-56, col 4/lines 15-28), configured to execute program in the network device (see col 3/lines 47-56, and col 4/lines 34-38) the program comprising:

        a program file ("downloadable unit") (col 8/lines 4-10) in a compiled code form program file (col 1/line 60-col 2/line 3) for execution by a processor; wherein the client device used the downloadable unit to control (manage) the network device (col 5/lines 44-49);

        said program including information ("communicator component") for establishing a communication across communication channel (14) between the client device (10) and the software program (col 4/lines 24-31, col 4/lines 15-19) included in the network device;

        said program including information ("interface component") for enabling the client device to communicate with software program within the network device (col 5/lines 31-43, col 4/line 24-28);

        said program including information ("configuration component") for controlling (managing) the network device (col 4/lines 41-48, col 7/lines 56-58);

        said software program including information ("web server") for communicating (e.g. transmitting/receiving information) with the client device (col 7/lines 9-16, col 5/lines 5-8);

        said software program including information ("communicator") for receiving and interpreting instructions (commands) from the client device (co 7/lines 9-16, col 5/lines 5-8) to the network device (col 6/lines 33, 58-60);

said software program including information ("configuration component") for performing commands form the client device on the network device (col 6/lines 34-42);

however Madany does not explicitly teach where the client device is a remote client device; a program contained (embedded) in a compiled software program file, extracting the embedded program from the compiled software program file,

Beard teaches a remote client device (12) receiving a program (e.g. applet) from a server (10) over the network (18) (col 3/lines 46-67);

a program or method ("the downloadable unit") is embedded in the compiled (binary) file of the operating system (software program), i.e. functions or methods within (embedded) the compiled code (i.e. binary form) of the operating system file (26) (software program), such as function services (library) are contained in a compiled code of the operating system program file (col 2/lines 28-32), these are identified by a particular package of classes (downloadable unit) (col 2/lines 56-63); wherein the libraries to be extracted for a class are embedded in the package for the class (col 5/lines 66-col 6/line 1);

extracting the embedded downloadable unit from the binary file, i.e. the functions library services (programs) within (embedded) the compiled code (i.e. binary form) of the operating system file (26) (software program) (col 2/lines 28-32), must be loaded into working memory (i.e. extracted) in order for an application program to employ the services provided by the library using techniques that are specific to the compiled code in which the library exists, i.e. is embedded (col 2/lines 63-67);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include a program(s) contained (embedded) in a compiled software program file, transferable over the Internet including means for extracting the embedded program from the compiled software program file to be used by an application, wherein the programs are configured as downloadable units, applets or embedded package of classes embedded in the compiled code of the operating system file, as taught by Beard, motivation to combine these teachings to configure embedded downloadable units, class packages or applets with dynamic linked libraries containing all information necessary to configure or define, control and communicate remotely with any device containing hardware/software resource.

Regarding claim 14, the network device includes anything (e.g. a network router) (Madany, col 3/lines 41-43).

Regarding claim 15, downloadable unit includes a Java™ class (Beard, col 2/lines 55-67).

Regarding claims 17-19, downloadable unit includes more than one downloadable unit (Beard, col 5/lines 21-30) are combined into downloadable unit packages (bundles) (Beard, col 5/line 66-col 6/line 4); are combined into downloadable unit bundles according to the downloadable unit functions (Beard: col 5/lines 21-30).

Regarding claim 20, the downloadable units have been combined into downloadable unit bundles according to particular class or kind ("version") information (Beard col 2/lines 56-67).

Regarding claim 21, wherein the software program includes an operating system (26) (Beard: col 4/lines 57-col 5/line 5).

Regarding claim 22, this claim is substantially the same as claim 14 discussed above, same rationale of rejection is applicable.

Regarding claims 23-24, wherein the web server communicates with the remote client using a file transfer protocol and using an Internet protocol (Madany, col 6/lines 12-21; Beard, col 3/lines 50-54).

Regarding claim 40, this claim includes limitation discussed on claim 12, same rationale of rejection is applicable, and further limitations include:

receiving from a remote client at a network device a request to manage the network device (Madany, col 5/lines 24-30), the network device including a software resources (Madany, col 3/lines 41-62, Beard; a programs embedded in the compiled code (binary) file of the operating system file (26) col 2/lines 28-32);

locating a downloadable unit, which correspond to the request and is embedded in the binary file (Beard: col 2/lines 28-67);

forwarding the downloadable unit to the remote client wherein the remote client utilizes the downloadable unit to manage the network device (Madany, col 5/lines 23-30).

Regarding claim 41, this claim comprises the system including the means associated with the method discussed on claim 40, same rationale of rejection is applicable for the apparatus (system) claims.

Regarding claim 42, this claim comprises the computer storage medium storing the program code for causing a computer to perform the method discussed on claim 40, same rationale of rejection is applicable for the apparatus (computer storage medium claim.

Regarding claim 43, this claim comprises the system comprising limitations combined from method 13 and 40 discussed above, same rationale of rationale of rejection is applicable.

Regarding claim 45-46, the software program includes a series ("list") of available function services (Beard: col 2/lines 56-67), a downloadable unit for each of the available functions services (Beard, col 4/lies 57- col 5/line 21).

4.      Claim 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany U.S. Patent No. 5,922,050 in view of Beard U.S. Patent No. 6,067,577 in further view of Gish U.S. Patent 5,768,510.

Regarding claim 16, however the above teachings do not explicitly teach wherein the step of obtaining a downloadable unit includes embedding ActiveX ™ control associated browser capabilities;

        Gish teaches a system/method distributed computer system comprising client computer software, server computer and a network for connecting the client computer to the server computer which utilize an execution software code configured to couple the server computer and the client computer via the network, disclosing means for obtaining downloading units (applets) using ActiveX ™ control technology for embedding software into downloadable units installing and configuring associated browser capabilities (Gish: col 15lline-col 16/line 8, col 16/lines 54-col 17/line 10);

        It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify existing system with means for obtaining a downloadable unit includes embedding ActiveX™ control and associated browser capabilities, as taught by Gish, motivation extend functionalities existing in Java (applets) technology to similar functions provided by ActiveX™ technologies, to give developers/designers to manufacture dynamic content for the Internet and network devices that work on multiple platforms, and are being widely supported, these small, fast components that enable developers to embed parts of software supported by a variety of programming languages, where one of ordinary skill in the art readily recognizes that ActiveX™ could be substituted for Java™ without undue experimentation to practice the invention.

5.      Claims 44, and 47-60 are rejected under 35 U.S.C. §103(a) as being unpatentable over Madany-
Beard in view of Gish U.S. Patent No. 5,768,510 in further view of Nakagawa et. al. (Nakagawa) U.S.
Patent No. 5,832,911.

Regarding claim 44, includes limitation discussed on claims 13 and 40, same rationale of rejection is
applicable to these limitation, further limitations include:

obtaining a ("new downloadable unit") program (Madany, col 8/lines 4-41, col 1/lines 60-col
2/line 3) for performing a function ("new service") (Madany, col 5/lines 44-49),

retrieving an embedded downloadable unit from a software program ("network device control
software program") compile code (binary) file having the embedded ("old downloadable unit") program
for performing a (old service") service from the network device (Beard col 2/lines 28-32, 63-67), however
prior art does not explicitly teach the substitution of program onto a network device;

Nakagawa teaches a system/method related to software distribution/maintenance with
which a software distributors can provide and update for a number of users software/services over a
network, for systematically distributed/maintained, re-installing and upgrading via a network connecting
many distributor and users of client/server software, wherein a client program automatically updates the
software to the latest version according to the update instruction information when it is received
(Nakagawa: col 1/line 13-col 5/line 10, abstract), disclosing means for retrieving the network device
control software program binary file having an embedded old downloadable unit for performing an old
service from a network device (Nakagawa: col 22/lines 3562);

It would be obvious to one ordinary skilled in the art at the time the invention was made
to modify exist system with means for retrieving the network device control software program binary file
having an embedded old downloadable unit for performing an old service from a network device, as
taught by Nakagawa, motivation would be to further enhance existing means for adding, upgrading
services to include a software distribution and maintenance means obtainable over a network for other
various types of software such as product software, shareware, embedded software, freeware, scientific
prototype software, intra-office software, etc, in an immediately operable form.

Regarding claim 47, this claim comprises limitation(s) substantially the same as those discussed on claims
13, and 40-44, same rationale of rejection is applicable, further limitations of claim 47 include where a
downloadable unit embedded in the binary file discussed above further includes, an interface component
for generating a user-interface to enable a user at the remote client to enter requests to configure the
network device (Madany, graphical user interface, i.e. enables a user to enter data, col 5/lines 34-43,

interact with the device, col 3/lines 54-56, Beard, user interface col 4/lines 61-65, transmit (forwarding) request, col 5/lines 24-25 from the remote client to the network device);

and instructions (configuration code) that performs the requests to configure the network device (Madany: user configurable network device, col 4/lines 2-4, any device, col 3/lines 41-43, receiving/interpreting instructions (commands) from the client device col 7/lines 9-16, col 5/lines 5-8 to the network device col 6/lines 33, 58-60, Gish: embedding software into downloadable units associated browser capabilities col 15/line-col 16/line 8, col 16/lines 54-col 17/line 10).

Regarding claim 48, this claim is substantially the same as limitations in claims 13 and 40, same rationale of rejection is applicable.

Regarding claims 49-59, this claim is substantially the same as limitations in claims 23-24, and 14-22 respectively, same rationale of rejection is applicable.

Regarding claim 60, this claim comprises a limitation(s) substantially the same as those discussed on claim 13 and 40, same rationale of rejection is applicable.

*Response to arguments*

6.      Applicant argues, that the processing power of a light switch in the Madany reference cannot be compare to a network device executing software, wherein storing data in memory cannot be compared with the complexity of "embedding of data in an executable program", this is beyond anything described in the Madany reference, therefore claimed invention is not obvious.

In response to the above argument it is noted that, that Madany discloses that the network device can be anything containing sufficient hardware and software resources to perform the operations described below, such devices include but are not limited to light switches, televisions, radios, door locks, computers, and the like (see col 3/lines 41-43). The applet contained within ROM 24 coupled to processor 22 is written in the JAVA programming language environment, by using an architecture-independent language such as JAVA, the applet may be executed on any type of computer and any type of processor (see col 4/lines 34-38). The Beard references teaches embedding data in an executable program (see col 3/lines 46-67, col 2/lines 28-32, 56-63 and col 5/lines 66-col 6/line 1).

Argument that Madany's devices have the "processing power of a light switch" incapable of executing a program is not persuasive.

7.    Applicant's arguments filed 10/09/03 have been fully considered but not rendered persuasive.

8.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).    A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action.    In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.    In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Prosecution of this application is closed by means of this final office action § 1.113, applicant may request continued examination of the application by filing a Request for Continued Examination of under 37 CFR § 1.114 and providing the corresponding fee set forth in § 1.17(e) for the submission of, but not limited to, new arguments, an information disclosure statement, an amendment to the written description, claims, drawings, or new evidence in support of patentability. Or applicant whose claims has been twice rejected, may appeal from the decision of the administrative patent judge to the Board of Patent Appeals and Interferences under 35 U.S.C. §134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Mark R. Powell can be reached on (703) 305-9703. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this final action should be mailed to:

**Box AF**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the Central Fax Office:
        (703) 872-9306, for Official communications and entry

Or Telephone:
        (703) 306-5631 for TC 2100 Customer Service Office

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).

MARC D. THOMPSON
MARC THOMPSON
PRIMARY EXAMINER

B. Prieto
TC 2100
Patent Examiner
November 15, 2003